Harold Umber

Editor's note: In July 1993 there began a period of wet weather that effectively separated North Dakota and parts of South Dakota from other areas of the Great Plains in terms of drought conditions. Extraordinary summer rainfall, followed by a winter of heavy snow and spring runoff filled and over-filled North Dakota's wetlands, recharged parched soils and raised water tables. Other areas of the plains got some relief during the wet summer, but the effects were not as long-lasting as they were in North Dakota. An extraordinary run of wet weather made us better able to withstand the effects of dry spells that had more severe impacts on our neighbors in prairie Canada and Montana, particularly north-central Montana. Most of the photos that accompany this essay were taken in spring 1990. Much of North Dakota, particularly in the west and south central portions of the state, has been dry since July 2001. Much of the landscape is starting to remind one of the late 1980s and early '90s, when pastures were short, fields blew, and marshes dried.

Less than 10 years ago North Dakota and much of the Great Plains suffered through one of the worst droughts of the 20th century. Conditions were bleak on the prairie as farmers struggled to grow crops without adequate moisture and maintain herds on dry pastures with little hay for winter forage. It was a part of a climatic cycle as old as the plains itself, and one that affected large areas of the country. Its duration was measured in years.

Effects were widespread and serious for wildlife: low lake levels limited fisheries, especially in marginal lakes; boat ramps were high and dry, limiting access for recreation where adequate water existed; marshes dried, grasslands suffered, alkali clouds – white dust on the wind – replaced water in hundreds of shallow marshes. Tumbleweeds filled low spots, strained fences and choked small town streets. Wildlife habitat was further diminished through emergency measures to provide hay for livestock producers.

Duck numbers dropped as wetlands in the Prairie Pothole Region dried and parched after several years of diminished moisture. Even deeper lakes and marshes fell to such low levels that it looked like it would take years to recover. As conditions worsened, duck numbers plummeted and retrievers born to hunt waterfowl were measured on upland game, like partridge, which prospered during the period. Many kids were denied the images and experiences of an early morning duck hunt on a prairie marsh in October. Older hunters lost their enthusiasm for duck hunting and participation fell along with duck numbers. It was feared that a lack of

Nicholas Schulz, now 21 years old, tastes the dirt of a windblown field in southern Pierce County in May 1990.

John Schulz

Bacground photo omitted

Not So Long Ago: Is Drought Returning?

Story by Harold Umber

participation would hurt conservation efforts, like the newly established North American Waterfowl Management Plan, that were directed toward the recovery of the continent's waterfowl resource.

In the 1993 fall hunting issue of *North Dakota OUTDOORS*, Game and Fish Director, K. L. Cool, after July rains had filled potholes and set the stage for future gains in waterfowl production, made the point that hunter participation had fallen faster than duck numbers and called for more duck hunters. His premise was simple and at the core of why the American system of wildlife management has been successful: Hunters support conservation efforts and without their participation and support, less would be done to bring back waterfowl numbers to previously high levels.

In July 1993, regular summer rain storms started a recharging process that was accelerated by snowmelt the following spring. The impact of timely moisture throughout the northern Great Plains was extraordinary, particularly in North Dakota, where concerns about the "big dry" gave way to concerns about too much water, particularly in flood prone areas like the Red River Valley and in the enclosed Devils Lake basin. It had been dry for so long that people were hesitant to complain about too much moisture.

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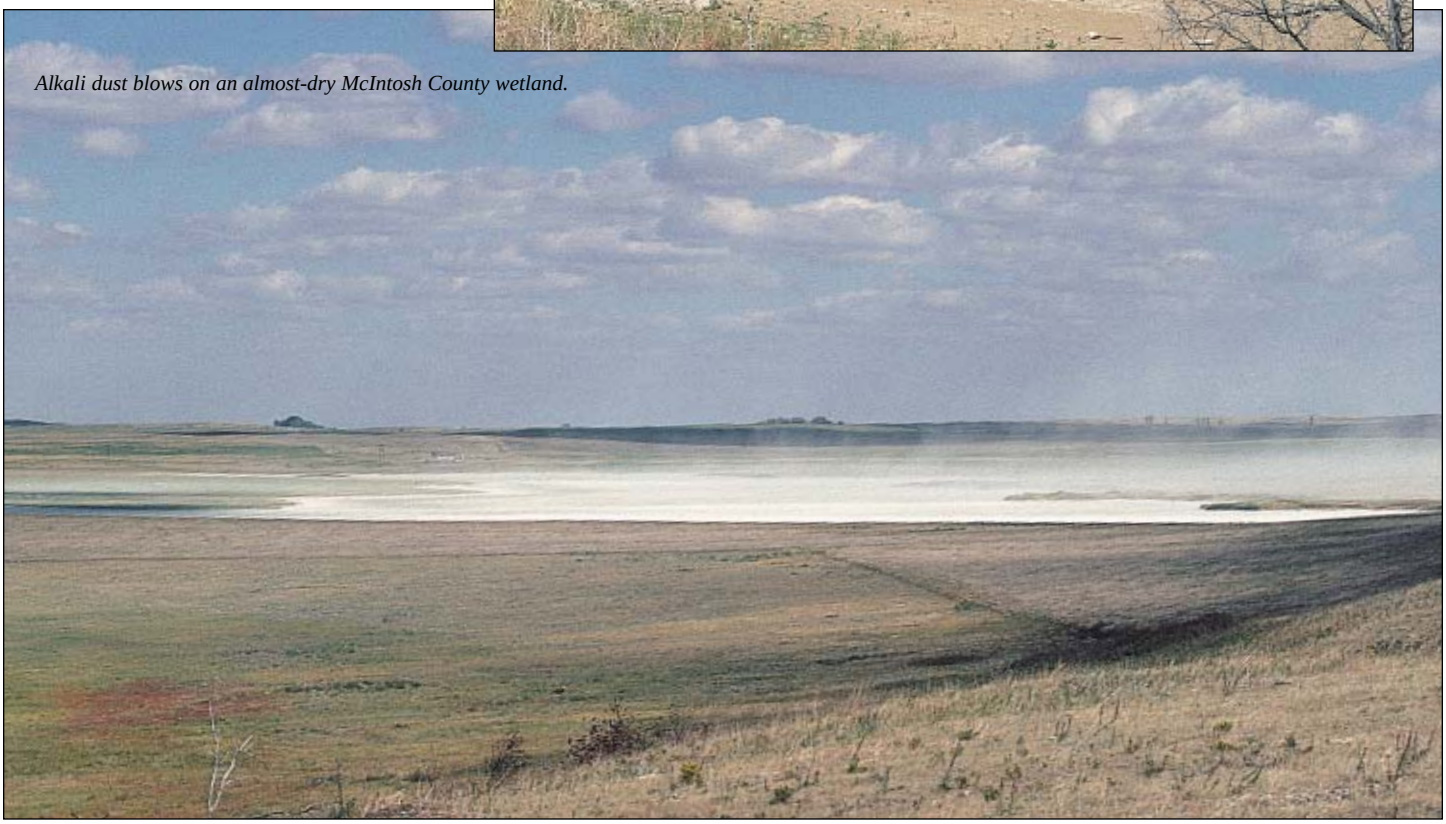
Beaver Bay, Lake Oahe, June 1990 (above) is starkly similar to Beaver Bay, June 2002 (below).

Chris Grondahl



Alkali dust blows on an almost-dry McIntosh County wetland.

Harold Umber

They got over it.

Hundreds of marshes and lake basins, once dry, overflowed, flooding roads and farm fields throughout much of the central and eastern part of the state. Missouri River reservoirs refilled and softened public outcry about the way the river was being managed. Flooded shoreline vegetation provided ideal spawning conditions for fish in many areas of the state. Concerns about freshening and stabilizing the level of Devils Lake with Missouri River water, turned to problems brought about by a lake that continued to rise to a level that could only be measured in historical terms. Concern shifted to finding ways to get rid of "excess water," and money to deal with the problems it was causing.

Plentiful water, habitat enhancement projects, and millions of acres of CRP brought about by the 1985 Farm Bill created conditions under which ducks and other wildlife prospered. North Dakota became part of an oasis on the plains. However, conditions in the Dakotas were different than elsewhere on the northern prairies, e.g. the relief in eastern and north central Montana was temporary and that area is now in its fifth year of drought. Much of the Canadian prairies are extremely dry, especially in Saskatchewan and Alberta, and after a dry fall and largely snow-free winter, parts of North Dakota are drying out. Small wetlands have decreased in number and there is concern about duck production. River-like conditions have replaced lake in much of North Dakota's portion of the Oahe Reservoir. In mid-June, boat ramps at Beaver Bay were high and dry and the water had receded into the old creek channel. Lake Sakakawea lost volume and more than a million dollars was committed to boat ramp projects to ensure access to the lower lake levels; however, spring rain and heavy snow in Montana brightened summer's prospects for both Fort Peck in Montana and Sakakawea in North Dakota.

North Dakota's abundance of wildlife came about because of some extraordinary weather events that allowed the state to recover from drought and maintain habitat conditions that weren't available everywhere. The result was, for the most part, positive in terms of fish and wildlife production. Duck numbers rebounded, white-tailed deer numbers exploded beyond historic levels, and pheasants responded and maintained healthy populations despite a couple of severe winters during the almost-10-year period. Partridge populations plummeted during summer 1993 and are just now beginning to show signs of recovery. Sharptail numbers have been up and down depending upon the part of the state surveyed. North Dakota's marshes filled and overfilled, expanding waterfowl habitat, and creating conditions under which new fisheries developed naturally, or through Game and Fish management efforts.

So here we are in summer 2002, after another mild winter, looking at the potential for another summer of good reproduction for most species in North Dakota. Pheasants are abundant and ducks are here in good numbers. Giant Canada geese populations continue to grow. The white-tailed deer population is at a high

A Burlington Northern coal train generated a swirling storm of tumbleweeds next to the railroad tracks between McKenzie and Bismarck in April 1990.

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Up close and personal in an alkali wetland, April 1990

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level and despite a good harvest last year, a record number of hunting licenses has been authorized for this fall's hunt.

There are a lot of positives, but signs that drought conditions may be returning add a bit of caution to our optimism. So much of our continental waterfowl production depends upon the drought-struck prairies of Canada that we may have a skewed view of overall population levels when nesting ducks are high and local reproduction is good. The oasis-like conditions in the Dakotas that helped bring waterfowl numbers up from the low levels of the '80s and early '90s may be short-lived, and a dry summer and another mild winter would be of concern for future reproductive efforts.

The cool weather and spring snowfall helped to green things up in parts of the state but the wet cycle we have experienced in the last 10 years may be giving way to drier conditions, prevalent in so much of the Great Plains. While drought grips areas around us, we continue to retain much of the habitat brought to us by increased attention to conservation. The Conservation Reserve Program and associated private land conservation measures, aside from providing habitat for wildlife, also paid benefits in improved water quality in our lakes and streams. Many acres of highly erodible land were stabilized and protected from wind erosion so common during the drought. Today, drought still grips a good portion of the country and practically every day we read of some emergency measure being implemented to mitigate its effects. Timely rains in localized areas may delay our march to the drier conditions of nearby states and provinces, but it is important to remember that despite some furious summer rain events in parts of North Dakota, that drought on the plains is a frequent visitor and the last one was not so long ago.

***HAROLD UMBER** is editor of North Dakota OUTDOORS.*

Photo omitted

Dry Lake near Ashley in McIntosh County was literally dry for a good many years. This photo, taken in June 1994, shows Dry Lake expanding into the trees that had grown unimpeded by water for years. Dry Lake went from a big grassy bowl that one could drive across, to one of the state's best perch fishing lakes in only a few years. Water depths exceeded 20 feet

Photo omitted